

On-Farm Monitoring and Management Practice Tracking for Central Coast Watershed Working Groups

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Introduction

The Coalition of Central Coast County Farm Bureaus (CCCCFB) represents six County Farm Bureaus in the development and implementation of voluntary, cost-effective, producer-directed programs to protect water quality in the greater Monterey Bay watershed. CCCCCB is utilizing existing industry networks to establish local watershed working groups made up of farmers, ranchers, and timber landowners. The role of the working group is to identify problem sites, and develop and carry out local agricultural watershed protection plans to assess and control nonpoint pollution on a voluntary basis. The watershed working groups inventory existing water quality protection measures, identify water quality improvement projects, and track management practice improvements. Technical assistance agencies have identified useful self-monitoring techniques, necessary equipment, and data collection methods that producers can utilize to respond proactively to concerns over non point source pollution. As part of this Fertilizer and Research Education Program (FREP) project, the CCCCCB has compiled those methods into a guide that will be used to train agricultural producers. Each of the six County Farm Bureau Agricultural Water Quality Programs is using the guide to purchase monitoring and tracking equipment that will be made available to watershed working group participants to guide their management practices. UC Cooperative Extension Office in San Luis Obispo is finalizing the curriculum for Farm Water Quality Planning (FWQP) short courses, and will also use the guide in the monitoring component of the courses. By participating in the on-farm monitoring and management practice tracking, producers are taking advantage of the opportunity to respond to water quality problems voluntarily. This FREP project is not conducting actual water quality research. It is helping to identify areas where new research can be developed that would be the most helpful to Central Coast producers.

Objectives

1. Gather existing information on tool kits, self-monitoring/tracking methods, and necessary equipment available to producers related to water quality. Provide needs assessment and a feedback loop from producers to research/technical assistance organizations.

2. Purchase self-monitoring equipment to be housed at County Farm Bureau Offices. Train County Farm Bureau Agricultural Water Quality Program Coordinators on methods of tracking management measures and monitoring equipment.
3. Coordinate watershed working group on-farm field sessions and short course sessions to train watershed working group participants in use of monitoring tools and tracking methods.
4. Utilize industry networks to promote educational activities surrounding nutrient management developed by local technical assistance agencies and consultants.

Description

A Monitoring/Tracking guide has been developed that includes on-farm monitoring, and tracking tools and methods related to water quality pollutants of concern. It also identifies contacts for on-site technical assistance and related research. County Farm Bureau Water Quality Program Coordinators and watershed working group participants will review the Monitoring/Tracking section, and their feedback will be communicated to research and technical assistance agencies. Equipment will be purchased for each County Farm Bureau Agricultural Water Quality Program. County Farm Bureau Program Coordinators will be trained by technical experts on monitoring and tracking techniques included in the guide. The County Coordinators will conduct at least twelve watershed working group field demonstrations or FWQP monitoring sessions. The watershed working group participants are also being encouraged to participate in mobile lab irrigation assessments, the FWQP short course, and in workshops and trainings that address nonpoint source pollution control.

Results and Conclusions

There is more information available for low-cost methods of tracking nitrates and sediment movement on and off of farms and ranches than for other pollutants of concern (phosphates, pesticides, pathogens, etc.). Producers would like more detailed information on specific crop needs for inputs like fertilizers to help them reduce the risk of inputs being lost to the environment. Local information on the effectiveness and the quantitative water quality benefits of various practices needs to be further researched. A continuous feedback loop between technical assistance representatives, agricultural producers, water quality experts, and regulators is imperative in the next few years because water quality protection practices, and appropriate monitoring and tracking techniques are part of a developing science.